

Atty. Docket No. 2207/15574

Application No. 09/811,111
Amendment dated September 1, 2005
Reply to Office Action of June 1, 2005

REMARKS/ARGUMENTS

Claims 1-27 are pending in the application. Claims 1-3, 5, 13-15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Trost et al. (U.S. 2002/0151275). Claims 4, 6-12, 16 and 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trost et al. (U.S. 2002/0151275). In discussing the Trost reference, Applicant is making no admission that Trost has a filing date that predates the Applicant's date of invention.

Applicant respectfully submits that none of the cited sections of Trost teach, suggest or reflect at least "[a] system for communication between a host device and a peripheral device comprising: the peripheral device to encode data and the host device to decode data under a Universal Serial Bus (USB) protocol to form a USB packet; wherein: *the USB packet is encoded using a Bluetooth protocol to form a Bluetooth packet* for the transmission between the host device and the peripheral device" [as in amended claim 1].

Applicant respectfully submits that the cited references do not contain such limitations anywhere in its disclosure. The Office Action states that forming the over-the-air packets for transmitting through the transceiver ("encoding USB packet into Bluetooth packet") is disclosed in Figure 13 and paragraphs 86-87 of page 6.

Paragraphs 86-87 of page 6 disclose:

"FIG. 13 is a graphical illustration of the layering and packets within the host and embedded software of a Bluetooth device. The upper most layer is the L2CAP layer 1301. An L2CAP packet produced by the L2CAP layer comprises a length field 1303, a channel ID 1305 and a payload 1307. The L2CAP packets are broken down into HCI packets in the HCI layer 1309. The HCI packets have flags to indicate whether they are the beginning of an L2CAP packet 1311 or a continuation of an L2CAP packet 1313. An HCI data payload 1315 will always end concurrently

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with an L2CAP payload 1307 in order to insure that the HCI packet does not straddle an L2CAP boundary. Accordingly a L2CAP packet always translates into an integer number of HCI packets.

The next lower layer 1317 is indicated as a HCI-USB layer in the host. Layer 1317 transfers HCI packets to the USB driver 1321. The USB Driver layer 1321 then converts the HCI packets to USB packets and then transmits the USB packets, e.g. 1323A and 1325A, across a physical connection. The physical connection in the present examples indicated as a USB hardware bus, coupled to the Bluetooth device. The USB packets are received in a USB Driver layer. The USB packets are then reassembled into HCI packets 1319B within the Bluetooth device. The HCI packets 1319B will then be formed into the over-the-air packets 1331 which will then be sent out over the Bluetooth radio 1333. An embodiment of the present invention inserts two more layers between the HCI packet 1319B and the over the air packet 1331. The first layer inserted is the layer that takes the HCI packet and forms firmware packet 1327. The second layer is a layer that maps the firmware packets 1327 into fragments 1329 within the transmit FIFO. The hardware will then automatically choose the over-the-air packets 1331 from the transmit FIFO. The fragments belonging to each connection are treated as contiguous segments except for the marker which shows where the L2CAP boundary is. When an L2CAP boundary is encountered an optimally sized over-the-air packet that does not straddle an L2CAP boundary is selected and sent."

Applicant respectfully submits that Trost does not teach the use of "[a] system for communication between a host device and a peripheral device comprising... wherein: the USB packet is *encoded* using a Bluetooth protocol..." as specifically recited in amended claim 1. Instead, the sections of Trost are meant to disclose *the conversion* of HCI packets into USB packets and the reassembly of the USB packets into HCI packets. The HCI packets are then formed into the over-the-air packets, which are then sent over the Bluetooth radio. However, nowhere in the Trost reference is the specific disclosure of a USB packet *being encoded* using a Bluetooth protocol as specifically recited in independent claim 1. Support can be found in the description of Figure 3 (please see pages 7 and 8 of specification):

Figure 3 illustrates the conversion of an HID data packet 304 to one or more Bluetooth baseband data packets 308. *In one embodiment, a BT-HID device adds a header (also called the Transaction Header - THdr) 302 to the HID payload 304. A THdr 302 can vary in length from 1 to 3 bytes. The first byte of header 302 identifies the Transaction Type (TT) associated with the transaction.*

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In one embodiment, L2CAP adds another layer of encapsulation, defined by the Bluetooth Specification. In this L2CAP packet, the length 310 and the CID 312 is provided in the header. If the payload 306 resulting from the first (BT-HID) encapsulation is too large to fit in a single baseband packet 308, the L2CAP layer will segment the payload 306 into smaller blocks 308 before transmission or assemble segmented received packets into an L2CAP packet.

As described above, embodiments of the present invention allows for more than just merely the conversion of a USB packet into a Bluetooth protocol, instead also using additional encoding (e.g., adding a header or an additional layer of encapsulation) using a Bluetooth protocol to facilitate the transfer of data between a host device and a peripheral system. Therefore, Applicant submits since each and every limitation of independent claim 1 is not present in the cited references, the 102(e) rejection should be withdrawn. Independent claims 13 and 25 contain similar limitations to independent claim 1, and therefore are in condition for allowance as well. Allowable dependent claims 2-12, 14-24 and 25-27 depend from allowable independent claims 1, 13 and 25 respectfully.

For at least the above reasons, Applicant respectfully submit that this application is in condition for allowance. A Notice of Allowance is earnestly solicited.

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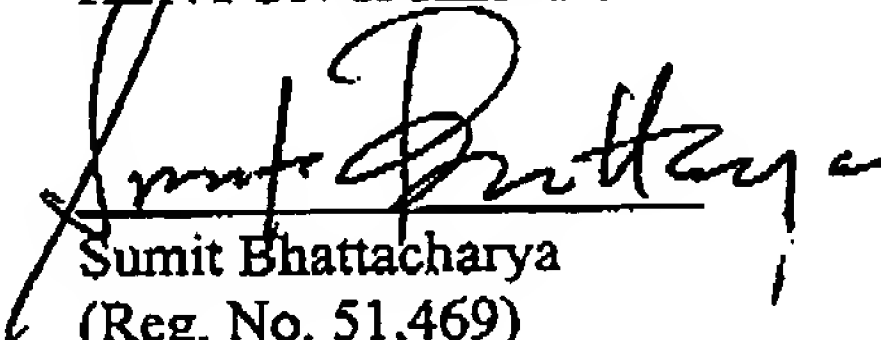
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The Examiner is invited to contact the undersigned at (408) 975-7500 to discuss any matter concerning this application. The Office is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 11-0600.

Respectfully submitted,
KENYON & KENYON

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